DOCUMENT RESUME

ED 241 687 CE 038 322

AUTHOR Johnson, Diane E.
TITLE Math Skills for Business. Instructor's Guide. Student Activity Packet. Office Occupations.
INSTITUTION East Texas State Univ., Commerce. Occupational Curriculum Lab.
SPONS AGENCY Texas Education Agency, Austin. Dept. of Occupational Education and Technology.
PUB DATE 83
NOTE 70p.; For related documents, see ED 222 722-730, ED 222 779, ED 226 162-163, ED 230 793-794, and CE 038 318-324.
AVAILABLE FROM Occupational Curriculum Laboratory, East Texas State University, Commerce, TX 75428 (Order No. BO-159-AVS: $40.00 for complete training package, including collateral slide/tape presentation).
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052) -- Guides - Classroom Use - Materials (For Learner) (051)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Arithmetic; Audiovisual Instruction; Behavioral Objectives; *Business Education; Classroom Techniques; Evaluation Criteria; *Fractions; Guidelines; Learning Activities; Learning Modules; *Mathematics Skills; *Office Occupations Education; *Percentage; Secondary Education; Student Evaluation; Teaching Methods
IDENTIFIERS *Business Mathematics

ABSTRACT

This training package, one in a series of instructional modules consisting of an instructor's guide and a student activity packet, deals with math skills for business. Included in the instructor's guide are general directions for implementing the presentation; a detailed guide for teaching the lesson that includes performance objectives, suggestions for discussion, optional student activities, suggested evaluation criteria, keys to the activities, and a narrative script for use with a separate slide/tape presentation (audiovisual material not included here); and a list of references. The student activity packet includes an introduction; performance objectives; directions for using the packet; a student checksheet; resource sheets; and activity sheets covering fractions and percentages, purchase orders, invoices, and sales and commissions tallies. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

OFFICE OCCUPATIONS

ED241687

MATH SKILLS FOR BUSINESS

INSTRUCTOR'S GUIDE
STUDENT ACTIVITY PACKET

Prepared by Diane E. Johnson

Published by
Occupational Curriculum Laboratory
Secondary and Higher Education
East Texas State University
Commerce, Texas

in cooperation with
Texas Education Agency
Occupational Education and Technology
Austin, Texas

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

D Bristow

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE 034 322

BC-159-AVS

FIRST EDITION
1983

300 copies

Brand names, company names, trademarks, or other identifying symbols appearing in the text are used to clarify and identify and do not constitute a recommendation or endorsement.

To insure educational equity, this material has been reviewed to eliminate bias or stereotyping.

Occupational Curriculum Laboratory
East Texas State University
Commerce, TX 75428

(214) 886-5623

ETSU, an Equal Opportunity University, complies with all federal requirements prohibiting discriminatory activities

MATH SKILLS FOR BUSINESS

TABLE OF CONTENTS

	Page
INTRODUCTION	v
ACKNOWLEDGMENTS	vii
INSTRUCTOR'S GUIDE	
General Instructions	
Equipment Needed	3
Preparations Before Class	3
Procedures for Group Setting	3
Procedures for Individual Setting	3
Instructions for Using Slides and Cassette Tapes	4
Student Checksheets	4
Resource Sheets	4
Activity Sheets	4
Specific Instructions	
Introduction	5
Performance Objectives	5
Special Notes to the Instructor	6
Script	7
Time and Facilities	7
Suggestions for Discussion	7
Optional Student Activities	8
Suggested Evaluation Criteria	9
Pretest	13
Key to Pretest	15
Key to Slide/Tape Exercises	
Exercise 1	15
Exercise 2	15
Exercise 3	15
Exercise 4	16
Exercise 5	16
Keys to Activities	
Activity 1	16
Activity 2	17
Activity 3	19
Activity 4	22
Narrative for Slide/Tape Presentation	23
Resources and References	31
STUDENT ACTIVITY PACKET	
Introduction	35
Performance Objectives	35
Materials	35
Directions	36
Student Checksheet	37

Resource Sheet
Activity 1 39
Activity 2 39
Activity 3 40
Activity 4 40
Activity Sheets
Activity 1 41
Activity 2, Purchase Orders 43
Activity 3, Invoices 53
Activity 4 63

INTRODUCTION

This module, made up of a slide/tape presentation and accompanying printed materials, was developed as a result of a proposal funded by the Texas Education Agency to the Occupational Curriculum Laboratory at East Texas State University. Based on the results of a needs assessment of selected postsecondary office occupations instructors from across the state of Texas, this and several other modules were developed to provide instructional materials in competency areas that require formal classroom training. Selected postsecondary office occupations instructors assisted in the development, field review, and evaluation of the final product. To further insure the usability of these products, they were evaluated by members of a business advisory committee and tested by postsecondary office occupations students.

All of the materials in these modules have been developed with student needs and interests in mind and are designed with the flexibility for use as supplementary or primary teaching aids in many of the office occupations classes. The overall reading level of the printed student material in this particular package is 12.9 as calculated according to the FOG Index. In general, this reading level score is consistent with that which can be expected of postsecondary students. The added audio and visual stimuli, which emphasize the same vocabulary as that contained in the student material, help insure understanding by those students whose reading levels do not meet these expectations.

Included in each slide/tape package are a set of full-color slides, a script, a cassette tape, an instructor's guide, and a student activity packet. Each instructor's guide includes general instructions for use by an individual or in a group setting, the narrative for the slide/tape presentation, and specific instructions on how to use the materials in a particular package. The specific instructions section contains the performance objectives, suggestions for class discussion, special notes to the instructor, optional student activities, solutions for the activities completed by the students, and suggestions for evaluation of the work produced.

The student activity packet consists of a section on information the student must know in order to complete the activities, the performance objectives to be attained, any necessary resource materials, and the activities to be completed in order to master the competencies on which the module is based.

ACKNOWLEDGMENTS

We extend special thanks to the following committee members and their employers for their cooperation in reviewing, evaluating, and testing the materials developed through this project:

Business Advisory Committee

Carol Ann Edwards, Consultant, Texas Education Agency

Nancy Hunsucker, Administrative Manager, Kelly Services

Teri Riza, Clerk-Typist, East Texas State University

Technical Advisory Committee

Patsy Blankenship, North Lake College

Dr. Jack E. Johnson, East Texas State University

Teacher Advisory Committee

Judy Ivy, Tarrant County Junior College, South Campus

Annie Williamson, Lamar University at Orange

In addition to these specific individuals, selected students at Tarrant County Junior College, South Campus, have tested these materials in their draft form and have provided valuable input for assuring that the final product meet the needs of the students for whose use this instructional package is intended.

Appreciation is also given to the following individuals at East Texas State University for their support, cooperation, and technical assistance.

Occupational Curriculum Laboratory

Ann Brodnax, Photographer

Frances Hyatt, Editor

Robert Norsworthy, Artist

INSTRUCTOR'S GUIDE

MATH SKILLS FOR BUSINESS

INSTRUCTOR'S GUIDE

GENERAL INSTRUCTIONS

Equipment Needed

Before using this presentation, make sure that arrangements have been made to have the following equipment available: a slide projector, a projection screen, and a cassette recorder/player.

Make sure that all equipment is working properly.

Preparations Before Class

1. Preview the slide/tape presentation and determine how it will be used in your class.
2. Plan short but relevant introductions to tell students what to look for in the slide/tape presentation.
3. Allow enough time to show the presentation in its entirety.
4. If you use handouts, be sure they are distributed after the presentation.

Procedures for Group Setting

1. Choose a point in the lesson where the slide/tape presentation will have the greatest impact.
2. After showing the slide/tape presentation, ask students to give highlights in their own words.
3. If necessary, show the presentation or parts of it again to emphasize points important to successful completion of the activities.
4. If necessary, make arrangements for students to use the slide/tape presentation on an individual basis.

Procedures for Individual Setting

1. Make sure space and equipment are available.
2. Check equipment to make sure it is working properly.
3. Demonstrate procedures for using the equipment.

4. Have students view the slide/tape presentation as many times as necessary to understand the information given.

Instructions for Using Slides and Cassette Tapes

1. Pick up each slide by its frame so that you do not touch the film.
2. Arrange the slides in the slide tray in sequential order with the slide number in the upper right corner facing you.
3. Insert the cassette tape into the recorder/player.
4. Rewind the cassette tape to be sure it will start at the beginning.
5. Turn on the slide projector. The first slide should be projected on the screen.
6. Start the cassette player.
7. Depress the advance button at the sound of the "beep" if you are using the audible advance.

(NOTE: Review the above procedures with those students who will be using the package individually.)

Student Checksheets

Student checksheets provide a convenient means for the student to take notes while viewing the slide/tape presentation. The points identified on the student checksheets are those the student will have to be familiar with in order to complete the activities provided.

Resource Sheets

Resource sheets contain information essential to the activities and serve as reinforcement for the competency requirements covered by the slide/tape presentation. Students should use the resource sheets as instructed in each student activity packet.

Activity Sheets

Activity sheets are working papers for students. Students are instructed to use them when completing certain activities.

MATH SKILLS FOR BUSINESS

INSTRUCTOR'S GUIDE

Specific Instructions

Introduction

Math Skills for Business is an audiovisual aid developed to help the student develop and/or improve basic mathematics skills: working with fractions and decimals to calculate percentages, taxes, discounts, markups, and profit or loss. These skills which may not be common to all office positions nontheless provide the student with the basic understanding and skill to transfer the computation techniques to other situations.

This slide/tape package consists of 80 full-color slides, a cassette tape, an instructor's guide, a script, and a student activity packet that could be used as primary or supplementary tools in such courses as office procedures, office machines, and business math. Any of these printed materials, which are not copyrighted, can and should be reproduced in order to provide an adequate supply of the materials for completing the activities; there are no separately printed student materials.

Performance Objectives

If a student satisfactorily completes this instructional package, the following competencies can be expected:

1. The student will be able to add, subtract, multiply, and divide whole numbers.
2. The student will be able to convert fractions to their decimal equivalents.
3. The student will be able to add and subtract figures containing decimals.
4. The student will be able to multiply figures containing decimals.
5. The student will be able to divide figures containing decimals.
6. The student will be able to round off figures to a specified number of decimal places.
7. The student will be able to calculate percentages.
8. The student will be able to calculate sales tax.
9. The student will be able to calculate discounts.
10. The student will be able to calculate markups.
11. The student will be able to calculate percentages of increase or decrease.

12. The student will be able to convert decimals to their percentage equivalents.

13. The student will be able to convert percentages to their decimal equivalents.

Special Notes to the Instructor

This instructional audiovisual package may be used in its entirety in a group setting or as a component of an individualized instruction curriculum. The instructor who desires to adapt this particular package to the specific needs of the program and/or the student may find the following suggestions helpful.

1. This package assumes that the student has previously acquired and mastered the basic math skills of addition, subtraction, multiplication, and division of whole numbers. Nowhere does this material directly address these skills; however, it instructs the student to generally treat figures with decimals in the same way as whole numbers are treated. Students who have not mastered these basic skills should be remediated in these areas before attempting this package.

2. The activities in the Student Activity Packet may be completed in any order assigned by the instructor or desired by the student.

3. Several times during the slide/tape presentation the student is instructed to stop the recorder and to complete a specific activity on the Student Checksheet. These activities are designed to help the student recognize mastery and/or need for review of the concept(s) presented. It is strongly recommended that when completing these particular exercises, which stress basic understanding of math concepts, the student NOT be allowed to use a calculator. The student must understand the process detailed on the slide/tape in order to complete the activities contained in the Student Activity Packet.

4. Stop frames and the exercises to be performed occur as follows:

   a. Frame 13: explanation of how to react to a "stop" frame

   b. Frame 24: exercise 1; conversion of fractions to decimals

   c. Frame 42: exercise 2; addition, subtraction, multiplication, and division using decimals; rounding

   d. Frame 50: exercise 3; conversion of percentages to decimals

   e. Frame 70: exercise 4; calculation of sales tax, discounts, markups

   f. Frame 77: exercise 5; determination of profit or loss

5. The instructor who wishes to present this unit in smaller segments will find logical stopping points immediately following each of these slides, which often coincide with the STOP frames in the presentation: 13 (general introduction), 25 (using and converting

fractions), 28 (adding and subtracting numbers with decimals), 30 (multiplication of numbers with decimals), 37 (division of numbers with decimals), 41 (rounding), 49 (determining percentages), 53 (calculating sales tax), 65 (calculating discounts), 69 (calculating markup), 80 (calculating profit or loss).

6. None of the activity directions requires the student to produce typewritten copy. The instructor may wish to add this requirement to activities 1 and 4.

7. The materials section of the Student Activity Packet requires the student to have access to a calculator to complete the provided activities. It is strongly recommended that students use a calculator to perform all computations required for the activities since this will more closely resemble on-the-job conditions than will hand calculation.

8. A very brief pre-test is provided immediately following the Suggested Evaluation Criteria in this section. Although this instrument is extremely short, it should aid the instructor in determining the student's strengths and weaknesses in the math skills convered by this slide/tape presentation.

9. If any of the provided activities cannot be used in your setting or if students require additional activities to achieve the performance objectives, refer to the section entitled Optional Student Activities. Neither resource sheets nor activity sheets are provided for these activities.

Script

A script containing a description of each slide and its narration can be found at the end of the Specific Instructions.

Time and Facilities

Approximately one 45- or 50-minute class period should be set aside for introduction and presentation of the slide/tape, which can be shown in any room that can be darkened or that has individual carrels equipped with slide carousels and cassette tape players. In addition, students should be able to complete the four activities in two to four hours. These time estimates are provided as guidelines only. The actual time spent in completing this package will vary with the amount of time (if any) that needs to be spent remediating students with basic math deficiencies and with the skills of the students. The estimated time needed to complete the provided activities is based on field test results of postsecondary students.

Suggestions for Discussion (for use in a group setting)

1. Before this slide/tape is presented, discuss with the students the performance objectives that must be met.

2. Discuss the importance of accuracy when working with figures. If possible, obtain from business advisory committee members examples of how inaccuracy of figures has created problems in their firms. Ask students for suggestions on how these situations could have been avoided.

3. Demonstrate the following techniques for checking and proofreading numbers:

   a. Calculating a column of figures from top to bottom and then from bottom to top.

   b. Having one person read from the original document while another checks the prepared copy.

   c. Reading numbers digit-by-digit from left to right and then from right to left.

   d. Performing all calculations twice.

4. After the slide/tape has been presented, discuss the amount of time that is needed to do hand calculations as opposed to doing the same activity on a calculator. Have two students demonstrate by giving each the same problem to do but providing one with a calculator and the other with only a pencil.

5. If necessary, demonstrate the techniques for addition, subtraction, multiplication, and division using a calculator.

6. Discuss the types of office positions in which the employee is regularly expected to perform mathematical calculations. Bring to class "help wanted" advertisements that specify the need for math and/or calculator proficiency.

Optional Student Activities

Four activities are provided in the Student Activity Packet. These activities are designed to reinforce the information presented on the slide/tape and to give students an opportunity to master some basic, job-related mathematical computations.

The following suggestions for additional activities may be used with students who need further skill refinement in these competencies or in courses where the provided activities are inappropriate.

1. Give each student a math pre-test to determine whether or not each can add, subtract, multiply, and divide whole numbers. If any student(s) cannot perform these functions, have them first review addition, subtraction, multiplication, and division of whole numbers in a basic or business math book. Before going any further, again check their understanding by using the pre-test. (This package should not be attempted by anyone who cannot perform basic math using whole numbers.)

2. Have students do problems out of a basic or business math text to develop or improve their skill in using a calculator.

3. If this package is used in a group setting, have students who are employed give brief explanations of the types of math-related tasks they perform on the job.

4. Have students prepare an inventory of all classroom furniture, equipment, supplies, and materials. Give them the cost figure for each item listed on the inventory. Require students to calculate extensions; the total amount of inventory in each of the four categories (furniture, equipment, supplies, materials); and the total value of all items inventoried. Provide students with a standardized form (or have them design an acceptable form) on which to record the inventory.

Category	Item Description	Number on Hand	$ Amount	Total	Total of Category
Furniture	*Teacher's desk*		*427.65*		
	Student desk		*227.50*		
	4-drawer file cabinet		*102.83*		

5. Assign additional problems, similar to those included in the Student Activity Packet, from commercial textbooks.

6. Make a list of commonly purchased grocery items (by brand name) and the prices paid for each (use prices off items that you currently have in your cupboard at home). Have students take this list to a local grocery store or supermarket and record the prices now being charged for the same items. Then have students calculate the amount and the percent of increase or decrease in the cost of each item.

Suggested Evaluation Criteria

The following is a checklist that can be used when evaluating the student's successful completion of this packet. This checklist is not intended as a method of grading but merely as a means of determining whether or not the student has mastered the competencies presented in this package.

1. Activity 1
   a. The student correctly calculated each of the required amounts. _____
   b. The student correctly converted each decimal amount to its percentage equivalent. _____
   c. The student's answers were recorded legibly. _____

2. Activity 2
   a. The student calculated all extension amounts correctly. _____

b. The student calculated all subtotal amounts correctly. _____

c. The student calculated all required taxes correctly. _____

d. The student calculated all totals correctly. _____

e. The student did not calculate taxes for:

(1) P.O. No. 214-375-445-5 _____

(2) P.O. No. 214-375-445-9 _____

f. The student aligned all figures with the appropriate item(s). _____

g. The student completed each purchase order neatly and legibly. _____

3. Activity 3

a. The student made corrections to the invoices with the following purchase order numbers noted:

(1) 1407

(a) tax _____

(b) total _____

(2) 1431

(a) amount for item 1 _____

(b) subtotal _____

(c) tax _____

(d) total _____

(3) 1401

(a) tax _____

(b) total _____

(4) 1408

(a) tax _____

(b) total _____

(5) 1403

(a) tax _____

(b) total

(6) 1405

(a) subtotal _____

(b) tax _____

(c) total _____

(7) 1409

(a) tax _____

(b) total _____

b. The student calculated discounts for the invoices with the following purchase order numbers noted:

(1) 1407 ____

(2) 1431 ____

(3) 1401 ____

(4) 1403 ____

(5) 1405 ____

(6) 1409 ____

c. The student did not calculate discounts for invoices with the following purchase order numbers:

(1) 1408 ____

(2) 1402 ____

(3) 1404 ____

(4) 1406 ____

d. The student made all corrections by "lining out" the incorrect figure and writing in the correct figure. ____

e. The student made all corrections and calculations neatly and legibly. ____

4. Activity 4

a. The student supplied all missing information. ____

b. The student correctly calculated commission figures for each sales representative. ____

c. The student correctly calculated total earnings by adding salary plus commission for each sales representative. ____

d. The student correctly identified an increase or decrease in amount and percent of sales for each sales representative. ____

e. The student correctly calculated the amount of increase or decrease in sales for each sales representative. ____

f. The student correctly calculated the percent of increase or decrease in sales for each sales representative. ____

g. The sales report was prepared neatly. ____

5. Completion time for activities

a. Completion time less than suggested time limits. ____

b. Completion time within suggested time limits. ____

c. Completion time exceeded suggested time limits. ____

PRETEST

Instructions: Perform the calculations as indicated in the instructions for each section. Place all answers on the lines provided.

A. Perform the indicated calculations.

1. 67 + 1097 + 4 + 172 = _____
2. 863 - 696 = _____
3. 43 x 4 = _____
4. 65 x 18 = _____
5. 692 ÷ 4 = _____
6. 3835 ÷ 59 = _____
7. 5110 ÷ 146 = _____

B. Perform the indicated calculations.

8. 87.5 + .0396 = _____
9. 537 + 11.17 + 1.3 = _____
10. 1407 + 1.014 + .16921 + 1.05 + .1 = _____
11. 169 - 7.01 = _____
12. 43.51 - 17.2 = _____
13. 1.09 - .00637 = _____

C. Perform the indicated calculations. Round all answers to three places to the right of the decimal.

14. 6.15 x 8 = _____
15. 51.9 x 6.7891 = _____
16. 453 ÷ 4.3 = _____
17. .6142 ÷ .039 = _____

D. Convert the following fractions to their decimal values.

18. 11/5 = _____
19. 1 1/5 = _____
20. 4/10 = _____
21. 1/2 = _____
22. 1 12/6 = _____

E. Convert the following decimal values to percentages.

23. 5 = _____
24. 3.67 = _____
25. .024 = _____
26. .00916 = _____

F. Convert the following percentages to their decimal values.

27. 47% = 27. _____

28. 100% = 28. _____

29. 1.59% = 29. _____

30. .35% = 30. _____

G. Using the figures in parentheses as the tax rate, determine sales tax and total price of each item.

		Tax	Total
31. - 32.	$157.53 (5%) =	31. _____	32. _____
33. - 34.	$3.97 (5½%) =	33. _____	34. _____
35. - 36.	$19.90 (7%) =	35. _____	36. _____
37. - 38.	$36,532 (14¼%) =	37. _____	38. _____

H. Using the figures in parentheses as the discount percentages, calculate the discounted price for each of the following.

39. $175.97 (2%) = 39. _____

40. $1409.50 (5%, 3%) = 40. _____

41. $97.32 (2/10, n/30; paid on the 5th day) = 41. _____

42. $97.32 (2/10, n/30; paid on the 15th day) = 42. _____

I. Using the figures in parentheses as the markup percentages, calculate the total price of each item, including markup.

43. $159.42 (20%) = 43. _____

44. $100.31 (105%) = 44. _____

J. Using the price figures shown below for the retail cost of a pair of jeans, calculate the amount of increase or decrease in the price of the jeans and the percent of increase or decrease in the price of the jeans (for each item individually). Indicate an increase by placing a "+" in front of each answer and indicate a decrease by placing a "-" in front of each answer.

(Round all percentages to two places to the right of the decimal.)

	Last Year	This Year	Amount of Inc./Dec.	Percent of Inc./Dec.
45. - 46.	$19.37	$23.91	45. _____	46. _____
47. - 48.	26.79	31.45	47. _____	48. _____
49. - 50.	39.97	35.53	49. _____	50. _____

KEY TO PRETEST

1. 1340	14. 49.2	27. .47	39. $172.45
2. 167	15. 352.354	28. 1	40. $1,298.85
3. 172	16. 105.349	29. .0159	41. $95.37
4. 1170	17. 15.749	30. .0035	42. $97.32
5. 173	18. 2.2	31. $7.88	43. $191.30
6. 65	19. 1.2	32. $165.41	44. $205.64
7. 35	20. .4	33. $.22	45. + $4.54
8. 87.5396	21. .5	34. $4.19	46. + 23.44%
9. 549.47	22. 3	35. $1.39	47. + $4.66
10. 1409.33321	23. 500%	36. $21.29	48. + 17.39%
11. 161.99	24. 367%	37. $5,297.14	49. - $4.44
12. 26.31	25. 2.4%	38. $41,829.14	50. - 11.11%
13. 1.08363	26. .916%		

KEY TO SLIDE/TAPE EXERCISES

Exercise 1

1. .5
2. 3.2
3. 4.1
4. 8.333...
5. 2.8333...

Exercise 2

Addition--	Subtraction--	Multiplication--	Division--
1. 3.662	1. 13.802	1. .958	1. 5.077
2. 14.96431	2. 1.906	2. 46.5	2. 15.2
3. 15.8	3. 1.8766	3. .333	3. 1.278
4. 4991.0701	4. 1.69086	4. 5.13	4. .048
5. 12.2816	5. .0371	5. 8037.399	5. 23.594

Exercise 3

1. .10	4. .006
2. .1714	5. .0000135
3. .000901	

Exercise 4

Sales Tax	Amount	Total
	.25	5.22
	3.39	64.98
	13.76	197.19
	170.51	2,013.88
	.19	3.37
Discounts	-0-	2,000.00
	40.12	1,965.88
	40.12	1,965.88
	345.03	1,660.97
	594.18	1,411.82
Markups	.75	4.50
	159.50	304.50
	31.25	93.75
	21.55	72.85
	9.30	39.80

Exercise 5

Region	± Amount of Change	± Percent of Change
I	+ $36,891.83	+ 32.30%
II	+ 286.00	+ .02%
III	- 5,000.50	- .52%
IV	+ 72,147.58	+ 106.33%
V	+ 50,000.00	+ 33.33%

KEYS TO ACTIVITIES

Activity 1

1. Twenty-five percent (25 percent)
2. 87.5 percent
3. 105 percent
4. 17.647 percent
5. 10 percent
6. 20 percent
7. 2.5 percent
8. 60 percent
9. 4.839 percent
10. 100 percent

Activity 2

PURCHASE ORDER

No. 214-375-445-1

Ship To: Samuel Bros.
451 Front Street
Levelland, TX 79336

Date: Current

Special Instructions:

Bill To: Same

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	C16925-FC	1	5-drawer letter file	$256.68	$770.04
2	C16992-FC	1	2-drawer letter file	157.74	157.74
				Subtotal	$927.78
				Tax (5½%)	51.03
				Total	$978.81

PURCHASE ORDER

No. 214-375-445-2

Ship To: Citywide Temporaries
1441 East 42nd Street
New York, NY 10011

Date: Current

Special Instructions:
SHIP FASTEST WAY

Bill To: Same

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	D-14-Z-SW	1	Secretarial unit	$541.50	$541.50
2	D-1421-SW	1	2-drawer vertical file	270.75	812.25
3	C-1440-SW	1	Sliding door credenza	159.53	159.53
4	C-1461-CC	1	Secretarial posture chair	127.41	127.41
5	C-1460-CC	4	Side arm chairs	159.59	638.36
				Subtotal	$2279.05
				Tax (5½%)	125.35
				Total	$2404.40

22

PURCHASE ORDER

No. 214-375-445-3

Ship To: Sandstrom & Sandstrom, Attornies
116 South Front Street
Marquette, MI 49855

Date: Current

Special Instructions:

Bill To: Same

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	I. 4060 PC	1	Desk-top PC-6 paper shredder	$577.41	$577.41
				Subtotal	$577.41
				Tax (5½%)	31.76
				Total	$609.17

PURCHASE ORDER

No. 214-375-445-4

Ship To: Manufacturers' Consultants
23 Oceanview
Fort Lauderdale, FL 33444

Date: Current

Special Instructions:

Bill To: Same

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	C90103-J	1	One-month appointment book	$30.49	$30.49
2	P2014-DF	3 doz.	Fine-line markers	4.99 dz	14.97
3	P2020-PL	10 doz.	Perforated legal pads	6.77 dz	67.70
				Subtotal	$113.16
				Tax (5½%)	6.22
				Total	$119.38

17

23

PURCHASE ORDER

No. 214-375-445-5

Ship To L. J. Smithson High School
Attn. David Rice
Bonham, TX 75418

Bill To Bonham Independent School District
P.O. Box 3536
Bonham, TX 75418

Date Current

Special Instructions

TAX EXEMPT NO.: NPS-4419-SD

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	1431-A	200 rm.	8½-in. x 11-in. white bond paper	$3.71 rm.	$742.00
2	1434-A	10 rm.	8½-in. x 11-in. white bond paper	4.12 rm.	41.20
3	1440-B	130 rm.	8½-in. x 11-in. white fluid duplicator paper	2.43 rm.	315.90
				Subtotal	$1099.10
				Tax (5½%)	
				Total	$1099.10

PURCHASE ORDER

No. 214-375-445-7

Ship To Traveler's Agency
1116 Lakeshore Drive, N
Chicago, IL 60611

Bill To Same

Date Current

Special Instructions

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	2713-B	25 pkg	Travel receipt forms	$1.73 pkg.	$ 43.25
2	2723-B	25 pkg	Itinerary planner	2.85 pkg.	71.25
3	4115-A	500	Leather pocket folder	6.15	3075.00
				Subtotal	$3189.50
				Tax (5½%)	175.42
				Total	$3364.92

PURCHASE ORDER

No. 214-375-445-6

Ship To U. S. Education Association
Office of the Controller
1400 Michigan Avenue, N
Washington, DC 20017

Bill To Same

Date Current

Special Instructions

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	11-116	137	Desk calendar refills	$4.63	$634.31
2	11-122	20	Desk calendar pads	7.13	142.60
				Subtotal	$ 776.91
				Tax (5½%)	42.73
				Total	$ 819.64

PURCHASE ORDER

No. 214-375-445-8

Ship To Trumann Builders
1842 Danfield Road
Oklahoma City, OK 73149

Bill To Same

Date Current

Special Instructions

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1		1	Rubber stamp: PAID	$ 3.23	$ 3.23
2		1	Rubber stamp: SAMPLE--NOT FOR RESALE	5.87	5.87
3		2	Rubber stamp stand/holder	11.14	22.28
				Subtotal	$31.38
				Tax (5½%)	1.73
				Total	$33.11

Activity 3

PURCHASE ORDER

No. 214-375-445-9

Ship To Northeastern State University
University Bookstore
I.H. 30-E
Texarkana, TX 75502

Bill To Purchasing Department
Northeastern State University
I.H. 30-E
Texarkana, TX 75502

Date Current

Special Instructions

TAX EXEMPT NO.: HE-4060-ED

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	K109	75	Textbooks: Financing Public Education	$16.20	$ 1215.00
2	M206	75	Monographs: Private Education Financing	6.35	476.25
				Subtotal	$ 1691.25
				Tax (5%)	—
				Total	$ 1691.25

INVOICE

Ship To Jay Carter High School
1444 Campbell Street
Sioux City, IA 51103

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	6/23/--
PURCHASE ORDER NO.	1407
SHIPPED VIA	Common Carrier
DATE SHIPPED	7/2/--
TERMS	10%, 8%

Catalog No.	Quantity	Description	Unit Price	Amount
C 2191	40	Secretarial posture chair	$ 61.15	$ 2,446.00
C 2280	38	Right-hand desk, left-hand typing return	416.50	15,827.00
C 2281	2	Left-hand desk, right-hand typing return	416.50	833.00
		pd 7/8	Subtotal	$19,106.00
			Discounts	3,286.23
			Subtotal	15,819.77
			Tax (5%)	790.99
			Total	~~$20,061.36~~ 16,610.76

PURCHASE ORDER

No. 214-375-446-1

Ship To Computer Services Store
114 N. Main Street
Tulsa, OK 74103

Bill To Same

Date Current

Special Instructions

RUSH

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	F 6193	2	Computer work station, 60-in. x 30-in.	$230.00	$ 460.00
2	F 6195	2	Corner connector, 60-degrees	106.60	213.20
3	F 6196	2	Turntable, 15-in. x 18-in.	56.85	113.70
4	F 3240	10	Computer binders, 23 pt. plastic	3.34	33.40
				Subtotal	$ 820.30
				Tax (5%)	45.12
				Total	$ 865.42

INVOICE

Ship To Sioux City Public Schools
District Warehouse
16881 West Jefferson
Sioux City, IA 51102

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/16/--
PURCHASE ORDER NO.	1431
SHIPPED VIA	Express
DATE SHIPPED	7/16/--
TERMS	2/10, n/30

Catalog No.	Quantity	Description	Unit Price	Amount
SS 1642	500 doz.	3-hole punched, wide-ruled notebook paper	$7.37 doz.	$3,685.00
SS 2001	175 doz.	Medium-point, ballpoint pens, blue	3.43 doz.	600.25
SS 3127	100 doz.	Pocket folders, assorted colors	1.68 doz.	168.00
SS 1717	850 doz.	No. 2 pencils	.99 doz.	841.50
		pd 7/24	Subtotal	$5,294.75
			Discounts	105.90
			Subtotal	5,188.85
			Tax (5%)	259.44
			Total	$5,448.29

INVOICE

Ship To H. C. Anderson Elementary School
Attn. M. Ann Sanna
1400 Prescott Street, South
Sioux City, IA 51103

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/16/--
PURCHASE ORDER NO.	1401
SHIPPED VIA	Central Shippers
DATE SHIPPED	7/17/--
TERMS	2/10, 1/20, n/30

Catalog No.	Quantity	Description	Unit Price	Amount
1091 C	1	Log playhouse	$693.10	$693.10

Subtotal	$693.10
Discounts	6.93
Subtotal	686.17
Tax (5%)	34.31
Total	~~$727.48~~

INVOICE

Ship To Westfall Middle School
Food Service
310 Front Street
Sioux City, IA 51101

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/19/--
PURCHASE ORDER NO.	1402
SHIPPED VIA	Local Delivery
DATE SHIPPED	7/18/--
TERMS	2/10, n/30

Catalog No.	Quantity	Description	Unit Price	Amount
--	30 bx.	2-lb. white rice	$1.43 bx.	$ 42.90
--	100 lb.	White flour	.39 lb.	39.00
--	25	Loaf, sliced wheat bread	.77	19.25
--	40	Loaf, sliced white enriched bread	.64	25.60

Subtotal	$126.75
Discounts	
Subtotal	
Tax (5%)	6.34
Total	$133.09

INVOICE

Ship To Administrative Offices
Sioux City Public Schools
2812 Fairmont Street
Sioux City, IA 51105

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/20/--
PURCHASE ORDER NO.	1408
SHIPPED VIA	Local Delivery
DATE SHIPPED	7/19/--
TERMS	Net

Catalog No.	Quantity	Description	Unit Price	Amount
--	2	Norfolk Island pine	$37.93	$ 75.86
--	1	Variegated jade plant, 12-in.	7.87	7.87
--	4	Boston fern (hanging baskets)	21.34	85.36
--	2 gal.	Liquid fertilizer	3.39 gal.	6.78
--	2	Plant light	29.87	59.74

Subtotal	$235.61
Discounts	
Subtotal	
Tax (5%)	~~10.38~~
Total	~~$246.39~~

INVOICE

Ship To Jay Carter High School
Principal's Office
1444 Campbell Street
Sioux City, IA 51103

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/23/--
PURCHASE ORDER NO.	1403
SHIPPED VIA	Express Mail
DATE SHIPPED	7/15/--
TERMS	8%, 3%

Catalog No.	Quantity	Description	Unit Price	Amount
M 2005017	30	Diskette, single sided, single density	$ 3.33	$ 99.90
ND 080	2	Diskette file tray	27.12	54.24

Subtotal	$154.14
Discounts	16.58
Subtotal	137.56
Tax (5%)	~~7.39~~
Total	~~$161.75~~

INVOICE

Ship To Westfall Middle School
Industrial Arts Department
310 Front Street
Sioux City, IA 51101

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/24/--
PURCHASE ORDER NO.	1405
SHIPPED VIA	Picked up by customer
DATE SHIPPED	7/15/--
TERMS	2/10, 1/20, n/30

Catalog No.	Quantity	Description	Unit Price	Amount
3610 H	7	Hammers	$3.21	$22.47
2791 H	2	3/4-inch drill bits	1.87	3.74
2792 H	5	5/8-inch drill bits	1.74	8.70
2793 H	5	1/2-inch drill bits	1.69	8.45
2794	14	3/8-inch drill bits	1.59	22.26

Subtotal	~~$66.62~~ 65.62
Discounts	6.56
Subtotal	59.06
Tax (5%)	~~3.33~~ 2.95
Total	~~69.95~~ 62.01

INVOICE

Ship To Hoover Elementary School
Counseling Office
2600 Stone Park Blvd.
Sioux City, IA 51104

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	8/1/--
PURCHASE ORDER NO.	1406
SHIPPED VIA	Central Shippers
DATE SHIPPED	7/29/--
TERMS	1/10, n/E.O.M.

Catalog No.	Quantity	Description	Unit Price	Amount
C-479-R	2	Cassette recorder/player	$67.43	$134.86
C-503-R	25	60-minute cassette tapes	1.63	40.75
C-521-R	3	Cassette caddy	3.29	9.87

Subtotal	$185.48
Discounts	
Subtotal	
Tax (5%)	9.27
Total	$194.75

INVOICE

Ship To Westfall Middle School
Industrial Arts Department
310 Front Street
Sioux City, IA 51101

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	7/29/--
PURCHASE ORDER NO.	1404
SHIPPED VIA	Local Delivery
DATE SHIPPED	7/15/--
TERMS	Net

Catalog No.	Quantity	Description	Unit Price	Amount
—	73	4-ft. x 8-ft. plywood sheets, 1/2-in., "A"	$12.37	$903.01

Subtotal	$903.01
Discounts	
Subtotal	
Tax (5%)	45.15
Total	$948.16

INVOICE

Ship To Kennedy Elementary School
Health Service Center
199 Westcott
Sioux City, IA 51107

Bill To Sioux City Public Schools
Attn. Business Manager
P.O. Box 1609
Sioux City, IA 51102

INVOICE DATE	8/1/--
PURCHASE ORDER NO.	1409
SHIPPED VIA	Common Carrier
DATE SHIPPED	8/1/--
TERMS	2/10, 1/15, n/20

Catalog No.	Quantity	Description	Unit Price	Amount
F 3216	2	Metal bookcase, 2-shelf	$ 74.36	$148.72
F 3410	1	3-Drawer metal file w/combination lock safe	217.50	217.50

Subtotal	$366.22
Discounts	3.66
Subtotal	362.56
Tax (5%)	~~18.13~~ 18.13
Total	~~384.69~~ 380.69

Activity 4

Sales Representative	Sales This Year	Commission 15% of Sales	Salary	Total Earnings	Sales Last Year	± Amount of Sales	± % of Sales
Archie, T.	$143,697.25	$21,554.59	$15,000.00	$36,554.59	$100,214.51	+ 43,482.74	+ 43.39%
Corrano, B.	112,421.21	16,863.18	15,000.00	31,863.18	90,634.65	+ 21,786.56	+ 24.04%
Jones, J.	82,310.00	12,346.50	15,000.00	27,346.50	31,355.90	+ 50,954.10	+ 162.50%
Lamb, C. J.	120.000.00	18,000.14	15,000.00	33,000.14	161,800.14	- 41,799.22	- 25.83%
McKnight, D.	42,498.01	6,374.70	15,000.00	21,374.70	46,371.10	- 3,873.09	- 8.35%
Myrtyka, S.	375,445.39	56,316.81	15,000.00	71,316.81	241,370.37	+ 134,075.02	+ 55.55%
Oberfelt, W.	268,373.92	40,256.09	15,000.00	55,256.09	266,325.45	+ 2,048.47	+ 0.77%
Rau, T.	21,488.62	3,223.29	15,000.00	18,223.29	34,411.17	- 12,922.55	- 37.55%
Sandstrom, L.	90,677.43	13,601.61	15,000.00	28,601.61	86,251.34	+ 4,426.09	+ 5.13%
Van Sant, E.	144,336.59	21,650.49	15,000.00	36,650.49	187,247.29	- 42,910.70	- 22.92%

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
1	Focus/Synchronize Slide	
2	Title Slide	Math Skills for Business
3	Stop Slide	Before beginning this slide/tape presentation, stop the recorder and locate the Student Checksheet in your Student Activity Packet. This checksheet provides a convenient means of taking notes on those portions of the presentation that you will need to know in order to confidently complete the activities that accompany this slide/tape package.
4	A collage of the various functions and signs	The amount of mathematics that an office employee is expected to perform on the job will vary. Every office employee, however, will be expected to at least manipulate whole numbers, fractions, percentages, and decimals using addition, subtraction, multiplication, and division.
5	Discounts, markups, sales taxes	Mathematics will be used to calculate discounts, markups, and sales taxes on merchandise;
6	Interest	to calculate interest paid or earned;
7	Petty cash, checking accounts, bank statements	to maintain petty cash systems and checking accounts--including reconciling bank statements;
8	Wages, salaries, etc.	to determine wages, salaries, deductions, and net earnings;
9	Page from typing book	and even to attractively place typed material on a page.
10	Accuracy	Whatever the purpose for using the various mathematical functions, the watchword is accuracy. Numbers can be transposed, decimal points inserted in the wrong place, percentages computed incorrectly.
11	1.03% ≠ 10.3% $19.44 ≠ $91.44	A discount of 1.03 percent is not the same as a discount of 10.3 percent. An invoice for $19.44 will not bring enough money to pay for merchandise costing $91.44.
12	A cartoon depicting this concept	This presentation will not attempt to teach addition, subtraction, multiplication, or division. Instead, it will address those areas that cause problems for many office employees--manipulation of fractions and decimals for computing percentages, sales taxes, discounts, and markups.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
13	Stop slide	As we address each mathematical process, you will be given an opportunity to put what you learn to use. Whenever you see this slide, you will be told to turn off the recorder and do an exercise. At that time, you should locate the exercise on the Student Checksheet and complete it before turning the recorder on again.
14	Converting fractions to decimals X/X converts to X.XX	In business, almost all mathematical calculations are done using decimals rather than fractions. Therefore, the first mathematical calculation that must be completed when faced with a fraction is to convert it to its decimal equivalent.
15	Proper fraction, improper fraction, mixed number	There are only three types of fractions with which you need to be familiar--a proper fraction, an improper fraction, and a mixed number.
16	Proper Fraction 1/4 1/2 5/8	A proper fraction is one in which the top number, the numerator, is smaller than the bottom number, the denominator. A proper fraction represents an amount less than one--a quarter of a year, a half a ream of paper, five-eighths of an inch.
17	Improper Fraction 10/4 = 2 1/2 15/3 = 5	An improper fraction has a numerator that is larger than its denominator and, when converted to a more usable form, is equal to more than one. Ten fourths is really two and one-half; fifteen thirds is really five.
18	Mixed Number 10/4 = 2 1/2 = 10/4	A mixed number is composed of a whole number and a fraction. For example, in the last frame we said that ten fourths is really two and one-half. Two and one-half is a mixed number. Every mixed number could be expressed as an improper fraction.
19	3/4 = 3 ÷ 4 = .75 9/16 = 9 ÷ 16 = .5625	Decimals are a more usable form of a fraction. To convert a fraction to a decimal, you divide the numerator by the denominator--either by hand or on a calculator. Three-fourths converts to point-seven-five; nine sixteenths converts to point-five-six-two-five.
20	2 4/5 5 x 2 = 10	To convert a mixed number to a decimal value, multiply the whole number by the denominator of the fraction;
21	2 4/5 10 + 4 = 14	add that product to the numerator of the fraction;
22	2 4/5 14/5	and place that sum over the original denominator. You have thus created an improper fraction.
23	2 4/5 2.8	Then you simply divide the numerator by the denominator to get the decimal value. Two and four-fifths becomes two-point-eight; one and one-fourths is one-point-two-five.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
24	Stop slide	Now stop the recorder and complete exercise one on the Student Checksheet. When you have finished the exercise, turn the recorder back on and advance to the next slide to check your understanding of fractions.
25	Key to exercise 1	If your answers match those shown on this slide, you know how to convert fractions to their decimal values and are ready to go on to using those decimals in a variety of ways. If any of your answers are incorrect, go back and review frames 14 through 23 before continuing this presentation.
26	Illustration of how to align decimals	Working with decimals is no more difficult than performing the same calculations using whole numbers. To add or subtract numbers containing decimals, just line up the decimals and perform the calculation as you would using whole numbers.
27	A problem with zeros added	If one of the figures you are working with has more numbers following the decimal point than does the other, fill in the extra spaces with zeros, as shown on this slide. Zeros added to the end of a decimal figure do not change the value of that number.
28	An addition problem and a subtraction problem	The decimal point in the answer of an addition or subtraction problem is aligned with the decimal points in the numbers you are adding or subtracting.
29	The problem being completed	To multiply numbers containing decimals, perform the multiplication as usual. Then count the number of digits behind each decimal point.
30	Counting the decimal places	In this example there are a total of four digits behind the decimals--three in the first number and one in the second. Beginning at the right of your answer, count four places to the left and insert the decimal point.
31	3.614 / 6.5	As in multiplication, the only new concept in division of numbers containing decimals is manipulation of the decimal point. To do this, remember that: 1. The number you are dividing into must contain at least as many places after the decimal point as does the number you are dividing by. In this example, the number you are dividing by has three places after the decimal.
32	2.614 / 6.500	The number you are dividing into has only one place following the decimal. Therefore, you must add <u>at least</u> two zeros to the six-point-five. Then both the number you are dividing into and the number you are dividing by will have an equal number of decimal places.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
33	3.614 / 6.500	2. The number you are dividing by must be cleared of the decimal by moving the decimal point all the way to the right of the number. Then, the decimal in the number you are dividing into must be moved the same number of places to the right.
34	The problem in frame 33 being started	Once you have moved the decimal, just place the decimal point for the answer immediately above where it appears in the number you are dividing into. Then, simply divide as you would without decimals.
35	The problem in frame 33 with one more step complete	If you have divided as far as you can, and you still have a remainder, just add more zeros after the decimal point and continue to divide.
36	The problem in frame 33 with extra zeros added after the decimal point	Sometimes, depending upon the numbers involved, you could go on dividing forever without reaching an even answer. However, you should be able to determine the number of decimal places needed in the answer by the work being done.
37	Money	Money amounts require only two decimal places; most other figures are adequately expressed with three decimal places, unless more places are specified.
38	$1.7988378	To reduce the number of decimal places in a number such as this one, you must "round off" to the number of decimal places you wish or need to use. If, for example, this number represented a money amount, you would round off to two decimal places.
39	1.7988378	"Rounding off" involves more than just dropping all of the digits beyond the number of decimal places you want to use. It involves making a decision based on the value of the digit immediately beyond the number of decimal places you need in your answer.
40	1.7988378 = 1.80	If this digit is five or more, you increase the preceding digit by one. For example, if you wanted to round the number on the screen to two places, you would look at the first number eight--the number one place past the number of places you want to round to. Since this number is more than five, you would add one to the nine.
41	1.7988378 = 1.7988	If the number you examine is less than five, you drop it without increasing the preceding digit. If you wanted to round the number shown here to four places, you would look at the three. Since three is less than five, you would simply drop the three.
42	Stop slide	Working with decimals is an important math application that you should be able to perform quickly and accurately. To test your skill, stop the recorder and locate exercise two on your Student Checksheet. When you have completed that exercise, restart the recorder and advance to the next slide to check your answers.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
43	Key to exercise 2	Do the answers you have recorded match these? Are your decimal points placed accurately? Have you "rounded off" correctly? If any of your answers are incorrect, review frames 26 through 41 before proceeding to the next frame.
44	Collage: markups, discounts, sales, budgets, sales taxes	Determining percentages is a frequent task for the office employee. Sales taxes; markups; discounts; increases and decreases in budgeting and sales are just a few of the figures that are calculated in terms of percentages.
45	75%	Before an amount can be determined from a percent, the percent figure must be converted to its decimal equivalent. To convert a percent to a decimal, the decimal point in the percent figure must be located. If the percent figure does not contain a decimal point, you must assume it is located at the end of the figure.
46	75% = 75. = .75	Once you have located the decimal point, you move it two places to the left and drop the percent sign.
47	12% = 12. = .12 126% = 126. = 1.26	To determine twelve percent of some figure, you would first convert twelve percent to a decimal figure by dropping the percent sign and moving the decimal two places to the left. One-hundred-twenty-one-point-six percent would be converted in the same way.
48	3% = 03. = 03. = .03	To convert a one-digit percent--such as three percent--to a decimal figure, you first need to add a zero in front of the three--and then move the decimal two places to the left.
49	12% of 50 50 x.12	Then, just multiply the decimal by the number to find the percent. Twelve percent of 50 is another way of saying point-one-two times 50.
50	Stop slide	Once again stop the recorder. Locate exercise three on the Student Checksheet and test your skills at converting percent figures to their decimal equivalents. When you have finished the exercise, turn the recorder on and advance to slide 51.
51	Key to exercise 3	Carefully compare your answers with those shown here. If all of your answers are correct, you are ready to begin applying the concepts you've learned. If any of your answers are incorrect, review slides 44 through 49 before going any further.
52	XX.00 Price of Item + .0X Sales Tax XX.0X Final Price	Sales tax is a percent calculated on the purchase price of an item and added to that price to determine the total cost. To make sales tax calculation easy, many businesses provide their employees with charts that list the exact amount of tax to be charged on various amounts of money.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
53	Hand calculation of sales tax	Without such a chart, the amount of sales tax can be determined by multiplying the price of the item by the sales tax percentage. Seven percent sales tax on an item priced at $1.75 would amount to 12 cents. The total price of the item, when these two figures are added together, would be $1.87, including tax.
54	CASH DISCOUNTS CHAIN DISCOUNTS	Discounts--incentives offered by a manufacturer or a wholesaler to get a retailer to purchase and stock certain merchandise--are also computed as a percent. There are two categories of discounts you should be able to calculate--cash discounts and chain discounts.
55	CASH DISCOUNT	Cash discounts are offered to encourage customers to pay as quickly as possible. The amount of the discount can be calculated from the "terms" statement shown on the invoice--the bill for the merchandise. The "terms" tell the buyer when the merchandise is to be paid for and whether or not a discount is being offered.
56	% of Discount → 2/10 ← Amount of Time	The terms are usually abbreviated in the form of a fraction to indicate discounts, if any, and due dates. The number or letter to the left of the slash indicates the percent of discount allowed; the number to the right shows the number of days you have to pay the bill in order to be entitled to the discount.
57	Terms: 2/10, n/30	One of the most common terms statements is shown on this slide. Two-slash-ten, n-slash-thirty means that the buyer will get a two percent discount if the invoice is paid within ten days of the billing date. Otherwise, payment of the net amount--the "n" stands for "net" or the total amount of the invoice--is due within thirty days.
58	Terms: 2/10, n/E.O.M.	This terms statement indicates that a two percent discount is offered on payment received within ten days. If payment is not made within that time, the net amount of the bill is due E-O-M, which stands for "end of month."
59	Terms: 3/10, 1/30, n/60	This is a third common terms statement. The buyer receives a three percent discount if the invoice is paid within ten days; or a one percent discount if it is paid after ten days but before thirty days. If neither of these discounts is taken advantage of, the net amount is due within sixty days.
60	CHAIN DISCOUNT	The second category of discounts with which you must be familiar is the chain discount. Chain discounts, which might also be called multiple discounts, are taken in a series--all on the same purchase.
61	Terms: 25%, 20%	For example, the terms shown on this frame indicate that a discount of 25 percent is being offered off the list price; and another discount of 20 percent can be taken off the first discounted price.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
62	This problem being completed	The first discount, 25 percent, is calculated on the list price of, let's say, $400. The second discount, 20 percent, is calculated on $300--the price determined after the amount of the first discount has been subtracted from the list price.
63	COMPLEMENT 100% - 25% 75%	The easiest way to calculate chain discounts (and markups, which we will talk about next) is to use the complement method. To use this method, you must subtract the percent--say 25 percent--from 100, which is considered to be the total or full amount of the list price.
64	75% x net price = discounted price 75% x 500 = 375	The 75 percent that results after the subtraction has taken place is the complement of 25 percent. Tog ther they equal 100. If you then multiply this complement times the net price, the product will be the discounted price.
65	discounted price x 2nd dis= count complement = cost	If chain discounts are being used, the discounted price is multiplied by the complement of the second discount. The complement method eliminates the additional work of calculating the discount and then subtracting it from the net price.
66	XX.XX List Price + XX% Markup XX.XX Selling Price	Markups, like discounts, are computed on the list price of an item. Unlike discounts, the amount of markup is added to the list price. It constitutes the amount of profit a retailer earns from merchandise that is sold.
67	This problem being completed	For example, a 20 percent markup on an item that cost the retailer $3.50 would amount to 70 cents. This 70-cent markup would be added to the amount the retailer paid to purchase the item, and the customer would be charged $4.20.
68	Calculation of the complement	Again, however, the complement method will produce the same answer without having to do any addition. Instead of calculating the markup separately, you calculate the entire cost at once. To do this, just multiply the list price by 120 percent--100 percent being the list price of the item, and 20 percent being the percent of the markup.
69	Calculation of the total cost	The resulting amount will be the total cost of the item, including the list price and the markup.
70	Stop slide	Stop the recorder and test your ability to calculate sales taxes, discounts, and markups by completing exercise four on the Student Checksheet. When you have finished all of the problems in the exercise, go on to frame 71 to check your answers.

SLIDE NO.	SLIDE DESCRIPTION	NARRATIVE
71	Key to exercise 4	Carefully check your answers on exercise four with those shown here. If all of your answers are correct, go on to the next slide. If any of your answers are incorrect, review frames 52 through 69 before continuing.
72	A table of figures for this type of calculation	The final type of mathematical calculation that office employees are often asked to perform is to determine the percentage of increase or decrease in such areas as sales, budgets, and so forth. To do this, the employee would be given two sets of figures--perhaps the sales figures from the current year and those from the previous year.
73	Last year's figures and this year's figures	The employee would begin by comparing the two amounts shown to determine whether the change was positive--an increase from last year to this year--or negative--a decrease from last year to this year.
74	The calculation being done	Then, the amount of the change would have to be computed by subtracting last year's figure from this year's figure.
75	The calculation being done	Once the amount of change has been determined, that amount of change would be divided by last year's figure to determine the percentage of change.
76	Conversion of a decimal to a percentage	This computation would result in a decimal figure which must be converted to a percent. To convert a decimal amount to a percent simply reverse the process used to convert a percent to a decimal--move the decimal point two places to the right and add a percent sign.
77	Stop slide	As a final check of what has been presented, stop the recorder and locate exercise five on the Student Checksheet. This exercise will give you practice in determining the percent of change that occurs between figures from two consecutive years. When you have finished the exercise, turn the recorder back on and proceed to frame 78 to find the correct solutions to the problems.
78	Key to exercise 5	Carefully check your answers with these. If they are correct, advance to the next slide and finish this presentation. If any of your answers do not match those given here, review frames 72 through 76 before completing the presentation.
79	Photograph of a bookkeeping office	What has been presented here is only a portion of the mathematics that will be performed by the typical office employee. These calculations, however, are often the most confusing and, at the same time, the most common to the office.
80	Credits Slide	

RESOURCES AND REFERENCES

Books

Amsco School Publications, Inc.
315 Hudson Street
New York, NY 10013

Modern Business Mathematics (1973), Kravitz

Bobbs-Merrill Educational Publishing
4300 West 62nd Street
P.O. Box 7080
Indianapolis, IN 46206

Business Mathematics (1981), Olson, Haber

Gregg/McGraw-Hill Book Company
13955 Manchester Road
Manchester, MO 63011

Business Math/30 (1976), Rosenberg, Alvey

Business Mathematics (1980), Miller

Business Mathematics (1982), Rosenberg, Lewis, Poe

Essential Business Mathematics (1979), Snyder, Jackson

Principles of Business Mathematics Using the Electronic Calculator (1978), Huffman, Fiber

Programmed Business Mathematics (1980), Huffman

Houghton-Mifflin
One Beacon Street
Boston, MA 02107

Electronic Calculators: A Mastery Approach (1981), Carter, Young

Practical Math for Business (1978), Curtis

South-Western Publishing Co.
5105 Madison Road
Cincinnati, OH 45227

Business Mathematics: A College Course (1978), Gossage

Business Mathematics for Colleges (1978), Rice, Mayne, Deitz

Other

Occupational Curriculum Laboratory
East Texas State University
Commerce, TX 75428

Financial Responsibilities (1981), Burrow

STUDENT ACTIVITY PACKET

MATH SKILLS FOR BUSINESS

STUDENT ACTIVITY PACKET

Introduction

Math skills are important to every individual--personally and professionally. Writing a check, counting change from a purchase, preparing a budget, determining mileage, preparing income tax returns, and buying groceries are only a few of the circumstances in which each of us must be able to make accurate mathematical calculations. Although the kinds of math-related tasks performed on the job often differ from those performed at home, the same kinds of skills are used. With the improved capabilities of calculators--readily available to almost all office employees--mathematical calculations can be completed rapidly and accurately. The only prerequisite to achieving this necessary speed and accuracy is an understanding of basic mathematics.

Performance Objectives

After satisfactorily completing this instructional package, you will be able to:

1. Add, subtract, multiply, and divide whole numbers.
2. Convert fractions to their decimal equivalents.
3. Add and subtract figures containing decimals.
4. Multiply figures containing decimals.
5. Divide figures containing decimals.
6. Round off figures to a specified number of decimal places.
7. Calculate percentages.
8. Calculate sales tax.
9. Calculate discounts.
10. Calculate markups.
11. Calculate percentages of increase and decrease.
12. Convert decimals to their percentage equivalents.
13. Convert percentages to their decimal equivalents.

Materials

*Student checksheet for use with slide/tape presentation
*Resource sheet for Activities 1-4
*Activity sheets for Activities 1-4
Calculator
Pen or pencil

*These materials are provided as a part of this activity packet.

Directions

This packet contains four activities. Each activity is detailed on the resource sheet which contains instructions and/or needed information. In addition, activity sheets are provided for completion of each activity. All answers and solutions to the activities are to be recorded on the appropriate activity sheet. To complete each of the activities, follow these steps:

1. Carefully read and follow the instructions listed on the resource sheet for each activity.

2. Assemble the supplies and materials you will need to complete the activity.

3. Complete the work called for in the activity instructions.

4. Check over your work for completeness and accuracy.

When all of the activities have been completed, submit them to your instructor for evaluation.

STUDENT CHECKSHEET

(To Be Used With Slide/Tape Presentation)

This sheet is provided as a convenient means of taking notes during the slide/tape presentation. The solutions to the problems presented here will be useful when completing the activities that accompany this presentation.

Exercise 1: Convert each of the fractions to its decimal equivalent.

1. 1/2 = _____
2. 16/5 = _____
3. 4 1/10 = _____
4. 5/6 = _____
5. 23/6 = _____
6. 5/8 = _____
7. 11/16 = _____
8. 3 11/16 = _____
9. 9 3/8 = _____
10. 17 14/4 = _____

Exercise 2: Perform the mathematical calculation indicated. Round all multiplication and division answers to three decimal places.

Addition--

1. .52 + 3.142 = _____
2. 14.9643 + .00001 = _____
3. 8.5 + 7.3 = _____
4. 6.9701 + 4984.1 = _____
5. 11.337 + .9446 = _____

Subtraction--

1. 14.903 - 1.101 = _____
2. 6.006 - 4.1 = _____
3. 11.09 - 9.2134 = _____
4. 1.7 - .00914 = _____
5. .0461 - .009 = _____

Multiplication--

1. .67 x 1.43 = _____
2. 31 x 1.5 = _____
3. 25.26 x .0132 = _____
4. 1.9 x 2.7 = _____
5. 1560.66 x 5.15 = _____

Division--

1. 16.5 ÷ 3.25 = _____
2. 24.32 ÷ 1.6 = _____
3. 6.006 ÷ 4.7 = _____
4. 1.5 ÷ 31 = _____
5. 151 ÷ 6.4 = _____

Exercise 3: Convert the following percentages to their decimal equivalents.

1. 10% = _____
2. 17.14% = _____
3. .0901% = _____
4. .6% = _____
5. .00135% = _____

Exercise 4: Find the amount of the sales tax, discount, or markup as indicated below. Then, for each item, calculate the total price. Round all money amounts to two places to the right of the decimal.

Sales Tax--

		Amount	Total
1.	5% of $4.97		
2.	5½% of $61.59		
3.	7½% of $183.43		
4.	9¼% of $1,843.37		
5.	6% of $3.18		

Discounts--(figure all on an invoice amount of $2,006.00)

1.	2/10, n/30 (paid on the 15th day)		
2.	2/10, E.O.M. (paid on the 8th day)		
3.	5/10, 2/30, n/60 (paid on the 11th day)		
4.	10%, 8%		
5.	15%, 10%, 8%		

Markups--

1.	20% on $3.75		
2.	110% on $145.00		
3.	50% on $62.50		
4.	42% on $51.30		
5.	30.5% on $30.50		

Exercise 5: Compute the amount and the percentage of change in sales. Round all answers to two decimal places. Indicate an increase by placing a "+" before the amount; indicate a decrease by placing a "-" before the amount.

Region	Last Year	This Year	± Amount of Change	± Percent of Change
I	$ 114,220.67	$ 151,112.50		
II	1,403,697.00	1,403,983.00		
III	960,000.50	955,000.00		
IV	67,853.30	140,000.88		
V	150,000.00	200,000.00		

RESOURCE SHEET

Activity 1

Instructions

1. Locate Activity Sheet 1.
2. Carefully read through the statements on the activity sheet.
3. Using a calculator (or completing the calculations by hand), convert each of the fractional amounts mentioned to its equivalent percentage.
4. Round off each of the percentages from step 3 to three places beyond the decimal.
5. Record your answers in the appropriate spaces.

Activity 2

Situation

The firm for which you work is an office furniture and supply wholesaler. Your job is to complete the orders that were taken over the telephone and to calculate the total cost to be billed to each customer. To do that you must calculate the total cost of each item ordered, the sales tax on the order, and the amount the customer owes your firm.

Important Terms

Tax Exempt No.: A number assigned to a public, non-profit organization to indicate that the organization is exempt from paying sales tax. Organizations that order merchandise and give a tax exempt number do not have sales tax recorded on their purchase order or on any resulting invoice.

Instructions

1. Locate Activity Sheet 2 (ten purchase order forms).
2. Carefully look over the ten purchase order forms shown on the activity sheets.
3. Pay close attention to any "Special Instructions."
4. Using a calculator, the quantity listed, and the price figures, determine the total cost for each item being purchased. Align the "total" figures with the item descriptions to which they refer.
5. Calculate the total cost of all items on the purchase order and record the answer in the space labeled "Subtotal."
6. Calculate sales tax at 5½ percent.
7. Calculate the total amount of the purchase order.
8. Round all figures to two places beyond the decimal.
9. Record your answers in the appropriate spaces on the purchase order forms.

Activity 3

Situation

You are employed by the Sioux City, Iowa, Public Schools. Your job is to process the invoices for merchandise purchased, check invoice accuracy, calculate any applicable discounts, and pay the amount owed. The ten invoices provided with this activity are examples of those you receive. The circled notation on each invoice (paid X/X) indicates the date on which you paid the invoice. That date must be compared to the invoice date to determine whether or not a discount is allowable.

Instructions

1. Locate Activity Sheet 3.
2. Carefully look over the ten invoices shown on the activity sheet.
3. Using a calculator, check the accuracy of all calculations on the invoice.
4. If any of the calculations is incorrect, draw a line through the incorrect amount and write in the correct calculation immediately above the incorrect one.
5. Compare the invoice date with the "paid" date (written in longhand) to determine which, if any, discounts apply.
6. Calculate any discount(s) to which you are entitled and record the correct figure on the line marked "Discounts."
7. Subtract any discount(s) from the invoice amount.
8. Calculate the sales tax at 5 percent on the revised (if applicable) invoice total.
9. Recalculate the total amount of the invoice.
10. Round all figures to two places beyond the decimal.
11. Record your answers in the appropriate spaces on the invoice.

Activity 4

Instructions

1. Locate Activity Sheet 4.
2. Carefully look over the table shown on the activity sheet.
3. Using a calculator, determine the amount of commission (in dollars and cents) each salesperson earned this year.
4. Calculate total earnings for each salesperson by combining salary and commission amounts.
5. Calculate each salesperson's amount of increase or decrease in total sales.
6. Calculate each salesperson's percentage of increase or decrease in total sales.
7. Round all answers to two places to the right of the decimal.
8. Record your answers in the appropriate spaces on the activity sheet.

ACTIVITY SHEET

Activity 1

1. One-fourth of our employees will begin work at 7 a.m. starting Monday, February 1. _____

2. All of the clerks in the file room have been instructed to reduce to 7/8 of full time as a means of saving money and positions. _____

3. We expect all of our managers to give 1 1/20 effc . to each campaign we undertake. _____

4. Our sales last month decreased 3/17 of what they were during the same period last year. _____

5. We anticipate staff reductions equaling 1/10 of our current level. _____

6. A fifth-cut tab covers 1/5 of the space across the top of the file folder. _____

7. The enrollment increase for this semester amounted to 1/40 over last semester. _____

8. This research project, in order to be both valid and reliable, must be based on a return rate of 3/5 of the surveys mailed. _____

9. The distance covered in this race was 3/62 greater than that covered in previous races. _____

10. We hope to have production back up to 6/6 by the beginning of next quarter. _____

PURCHASE ORDER

No. 214-375-445-1

43

Ship To Samuel Bros.
451 Front Street
Levelland, TX 79336

Date Current

Bill To Same

Special Instructions

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	C16925-FC	3	5-drawer letter file	$256.66	
2	C16992-FC	1	2-drawer letter file	157.74	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-2

Ship To Citywide Temporaries
1441 East 42nd Street
New York, NY 10011

Date Current

Bill To Same

Special Instructions

SHIP FASTEST WAY

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	D-1442-SW	1	Secretarial unit	$541.50	
2	D-1423-SW	3	2-drawer vertical file	270.75	
3	C-1440-SW	1	Sliding door credenza	159.53	
4	C-1461-CC	1	Secretarial posture chair	127.41	
5	C-1460-CC	4	Side arm chairs	159.59	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-3
45

Ship To Sandstrom & Sandstrom, Attornies
116 South Front Street
Marquette, 49855

Date Current

Bill To Same

Special Instructions

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	M 4060 PC	1	Desk-top PC-6 paper shredder	$577.41	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-4

Ship To Manufacturers' Consultants
23 Oceanview
Fort Lauderdale, FL 33444

Date Current

Bill To Same

Special Instructions

Item No.	Catalog No.	Quantity	Description	Unit Price	Amount
1	C90103-J	1	One-month appointment book	$30.49	
2	P2014-DF	3 doz.	Fine-line markers	4.99 dz	
3	P2020-PL	10 doz.	Perforated legal pads	6.77 dz	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-5

47

Ship To L. J. Smithson High School
Attn. Divid Rice
Bonham, TX 75418

Bill To Bonham Independent School District
P.O. Box 3536
Bonham, TX 75418

Date Current

Special Instructions

TAX EXEMPT NO.: NPS-4419-SD

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	1431-A	200 rm.	8½-in. x 11-in. white bond paper	$3.71 rm.	
2	1434-A	10 rm.	8½-in. x 11-in. white bond paper	4.12 rm.	
3	1440-B	130 rm.	8½-in. x 11-in. white fluid duplicator paper	2.43 rm.	
				Subtotal	
				Tax (5¼%)	
				Total	

PURCHASE ORDER

No. 214-375- 445-6

Ship To U. S. Education Association
Office of the Controller
1400 Michigan Avenue, N
Washington, DC 20017

Bill To Same

Date Current

Special Instructions

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	11-116	137	Desk calendar refills	$4.63	
2	11-122	20	Desk calendar pads	7.13	
				Subtotal	
				Tax (5¼%)	
				Total	

PURCHASE ORDER

No. 214-375-445-7

49

Ship To Traveler's Agency
1116 Lakeshore Drive, N
Chicago, IL 60611

Bill To Same

Date Current

Special Instructions

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	2713-B	25 pkg	Travel receipt forms	$1.73 pkg	
2	2723-B	25 pkg	Itinerary planner	2.85 pkg	
3	4115-A	500	Leather pocket folder	6.15	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-8

Ship To Trumann Builders
1842 Danfield Road
Oklahoma City, OK 73149

Bill To Same

Date Current

Special Instructions

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1		1	Rubber stamp: PAID	$ 3.23	
2		1	Rubber stamp: SAMPLE--NOT FOR RESALE	5.87	
3		2	Rubber stamp stand/holder	11.14	
				Subtotal	
				Tax (5½%)	
				Total	

PURCHASE ORDER

No. 214-375-445-9

51

Ship To Northeastern State University
University Bookstore
I.H. 30-E
Texarkana, TX 75502

Bill To Purchasing Department
Northeastern State University
I.H. 30-E
Texarkana, TX 75502

Date Current

Special Instructions

TAX EXEMPT NO.: HE-4060-ED

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	K109	75	Textbooks: Financing Public Education	$16.20	
2	M206	75	Monographs: Private Education Financing	6.35	
				Subtotal	
				Tax (5¼%)	
				Total	

PURCHASE ORDER

No. 214-375-446-1

Ship To Computer Services Store
114 N. Main Street
Tulsa, OK 74103

Bill To Same

Date Current

Special Instructions

RUSH

Item No.	*Catalog No.*	*Quantity*	*Description*	*Unit Price*	*Amount*
1	F 6193	2	Computer work station, 60-in. x 30-in.	$230.00	
2	F 6195	2	Corner connector, 60-degrees	106.60	
3	F 6196	2	Turntable, 15-in. x 18-in.	56.85	
4	F 3240	10	Computer binders, 23 pt. plastic	3.34	
				Subtotal	
				Tax (5¼%)	
				Total	

INVOICE

Ship To	Jay Carter High School 1444 Campbell Street Sioux City, IA 51103	*INVOICE DATE*	6/23/-- 53
		PURCHASE ORDER NO.	1407
		SHIPPED VIA	Common Carrier
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/2/--
		TERMS	10%, 8%

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
C 2191	40	Secretarial posture chair	$ 61.15	$ 2,446.00
D 2280	38	Right-hand desk, left-hand typing return	416.50	15,827.00
D 2281	2	Left-hand desk, right-hand typing return	416.50	833.00
		pd 7/8		
			Subtotal	$19,106.00
			Discounts	
			Subtotal	
			Tax (5%)	955.30
			Total	$20,061.30

INVOICE

Ship To	Sioux City Public Schools District Warehouse 16881 West Jefferson Sioux City, IA 51102	*INVOICE DATE*	7/[illegible]--
		PURCHASE ORDER NO.	14[illegible]
		SHIPPED VIA	Express
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/16/--
		TERMS	2/10, n/30

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
SS 1642	500 doz.	3-hole punched, wide-ruled notebook paper	$7.37 doz.	$3,685.50
SS 2001	175 doz.	Medium-point, ballpoint pens, blue	3.43 doz.	600.25
SS 3127	100 doz.	Pocket folders, assorted colors	1.68 doz.	168.00
SS 171[illegible]	850 doz.	No. 2 pencils	.99 doz.	841.50
		pd 7/23		
			Subtotal	$5,295.25
			Discounts	
			Subtotal	
			Tax (5%)	264.76
			Total	$5,560.01

INVOICE

Ship To	H. C. Anderson Elementary School Attn. M. Ann Samsa 1400 Prescott Street, South Sioux City, IA 51103	*INVOICE DATE*	7/16/-- 55
		PURCHASE ORDER NO.	1401
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*SHIPPED VIA*	Central Shippers
		DATE SHIPPED	7/17/--
		TERMS	2/10, 1/20, n/30

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
1091 C	1	Log playhouse pd 7/29	$693.10	$693.10
			Subtotal	$693.10
			Discounts	
			Subtotal	
			Tax (5%)	34.66
			Total	$727.76

INVOICE

Ship To	Administrative Offices Sioux City Public Schools 2812 Fairmont Street Sioux City, IA 51105	*INVOICE DATE*	7/20/--
		PURCHASE ORDER NO.	1408
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*SHIPPED VIA*	Local Delivery
		DATE SHIPPED	7/19/--
		TERMS	Net

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
--	2	Norfolk Island pine	$37.93	$ 75.86
--	1	Variegated jade plant, 12-in.	7.87	7.87
--	4	Boston fern (hanging baskets)	21.34	85.36
--	2 gal.	Liquid fertilizer	3.39 gal.	6.78
--	2	Plant light pd 7/29	29.87	59.74
			Subtotal	$235.61
			Discounts	
			Subtotal	
			Tax (5%)	10.78
			Total	$246.39

INVOICE

Ship To	Westfall Middle School Food Service 310 Front Street Sioux City, IA 51101	*INVOICE DATE*	7/19/-- 57
		PURCHASE ORDER NO.	1402
		SHIPPED VIA	Local Delivery
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/18/--
		TERMS	2/10, n/30

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
--	30 bx.	2-lb. white rice	$1.43 bx.	$ 42.90
--	100 lb.	White flour	.39 lb.	39.00
--	25	Loaf, sliced wheat bread	.77	19.25
--	40	Loaf, sliced white enriched bread	.64	25.60
		pd. 7/30		
			Subtotal	$126.75
			Discounts	
			Subtotal	
			Tax (5%)	6.34
			Total	$133.09

INVOICE

Ship To	Jay Carter High School Principal's Office 1444 Campbell Street Sioux City, IA 51103	*INVOICE DATE*	7/23/--
		PURCHASE ORDER NO.	1403
		SHIPPED VIA	Express Mail
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/19/--
		TERMS	8%, 3%

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
N 2005017	30	Diskette, single sided, single density	$ 3.33	$ 99.90
ND 080	2	Diskette file tray	27.12	54.24
		pd 7/30		
			Subtotal	$154.14
			Discounts	
			Subtotal	
			Tax (5%)	7.71
			Total	$161.75

INVOICE

Ship To	Westfall Middle School Industrial Arts Department 310 Front Street Sioux City, IA 51101	*INVOICE DATE*	7/24/-- 59
		PURCHASE ORDER NO.	1405
		SHIPPED VIA	Picked up by customer
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/15/--
		TERMS	2/10, 1/20, n/30

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
3610 H	7	Hammers	$3.21	$22.47
2791 H	2	3/4-inch drill bits	1.87	3.74
2792 H	5	5/8-inch drill bits	1.74	8.70
2793 H	5	1/2-inch drill bits	1.69	8.45
2794	14	3/8-inch drill bits	1.59	22.26
		pd 8/2		
			Subtotal	$56.62
			Discounts	
			Subtotal	
			Tax (5%)	2.83
			Total	$59.45

INVOICE

Ship To	Westfall Middle School Industrial Arts Department 310 Front Street Sioux City, IA 51101	*INVOICE DATE*	7/29/--
		PURCHASE ORDER NO.	1404
		SHIPPED VIA	Local Delivery
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*DATE SHIPPED*	7/15/--
		TERMS	Net

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
--	73	4-ft. x 8-ft. plywood sheets, 1/2-in., "A"	$12.37	$903.01
		pd 8/2		
			Subtotal	$903.01
			Discounts	
			Subtotal	
			Tax (5%)	45.15
			Total	$948.16

INVOICE

Ship To	Hoover Elementary School Counseling Office 2600 Stone Park Blvd. Sioux City, IA 51104	*INVOICE DATE*	8/1/-- 61
		PURCHASE ORDER NO.	1406
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*SHIPPED VIA*	Central Shippers
		DATE SHIPPED	7/29/--
		TERMS	1/10, n/E.O.M.

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
C-479-R	2	Cassette recorder/player	$67.43	$134.86
C-503-R	25	60-minute cassette tapes	1.63	40.75
C-521-R	3	Cassette caddy	3.29	9.87
		pd 8/4		
			Subtotal	$185.48
			Discounts	
			Subtotal	
			Tax (5%)	9.27
			Total	$194.75

INVOICE

Ship To	Kennedy Elementary School Health Service Center 199 Westcott Sioux City, IA 51107	*INVOICE DATE*	8/1/--
		PURCHASE ORDER NO.	1409
Bill To	Sioux City Public Schools Attn. Business Manager P.O. Box 1609 Sioux City, IA 51102	*SHIPPED VIA*	Common Carrier
		DATE SHIPPED	8/1/--
		TERMS	2/10, 1/15, n/20

Catalog No.	*Quantity*	*Description*	*Unit Price*	*Amount*
F 3216	2	Metal bookcase, 2-shelf	$ 74.36	$148.72
F 3410	1	3-drawer metal file w/combination lock safe	217.50	217.50
		pd 8/4		
			Subtotal	$366.22
			Discounts	
			Subtotal	
			Tax (5%)	18.31
			Total	$384.53

ACTIVITY SHEET

Activity 4

Sales Representative	Sales This Year	Commission 15% of Sales	Salary	Total Earnings	Sales Last Year	± Amount of Sales	± % of Sales
Archie, T.	$143,697.25		$15,000.00		$100,214.51		
Corrano, B.	112,421.21		15,000.00		90,634.65		
Jones J.	82,310.00		15,000.00		31,355.90		
Lamb, C. J.	120,000.92		15,000.00		161,800.14		
McKnight, D.	42,498.01		15,000.00		46,371.10		
Myrtyka, S.	375,445.39		15,000.00		241,370.37		
Oberfelt, W.	268,373.92		15,000.00		266,325.45		
Rau, T.	21,488.62		15,000.00		34,411.17		
Sandstrom, L.	90,677.43		15,000.00		86,251.34		
Van Sant, E.	144,336.59		15,000.00		187,247.29		